*BY ORDER OF THE COMMANDER*
*AIR FORCE MATERIEL COMMAND*

*AFMC INSTRUCTION 21-118*

*26 FEBRUARY 1996*

*Maintenance*

# *AIRCRAFT AND MISSILE MAINTENANCE PRODUCTION/COMPRESSION REPORT (AMREP) SYSTEM (A030D) (RCS:HAF-LGX(AR)7109)*

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFPD 21-1, *Managing Aerospace Equipment Maintenance*. It explains the procedures for entering and updating the AMREP System, outlines responsibility for data entry and addresses exercise management. The AMREP System provides AFMC, HQ USAF and using commands the status of all aircraft and missiles undergoing depot maintenance at all AFMC or contractor repair facilities. It also projects when equipment will be inducted into programmed depot maintenance (PDM).

## *SUMMARY OF REVISIONS*

This revision to AFMCR 55-305 aligns the instruction with AFI 21-102, *Depot Maintenance Management*. It also updates the procedures, terminology and responsibilities for input of data to the AMREP System.

### *Section A—Background*

**1. Introduction.** This instruction provides guidance, procedures, and responsibilities for the AMREP System (A030D). It also covers policies for reporting aircraft and missiles in a depot maintenance status, scheduling of aircraft and missiles back to the user, and the operation and use of the AMREP System during exercises and contingencies.

**2. Purpose.** The purpose of the AMREP System is to document the inwork/storage status of aircraft and missiles possessed by AFMC and undergoing depot maintenance at AFMC or contractor facilities. It also identifies aircraft or missiles that can be compressed or accelerated for early return to the owning commands when required.

**3. Abbreviations, Acronyms, and Terms.** See **Attachment 1**.

*Section B—Procedures*

**4. Responsibilities.**

4.1. HQ AFMC Directorate of Logistics is the command office of primary responsibility (OPR) for the AMREP System.

4.2. The air logistics center (ALC) system program manager (system program director {SPD}) is the ALC OPR for data contained in this system. SPDs will designate certain individuals who may enter and change data in the AMREP. When work is performed at a site other than where the SPD/SSM is located, the SPD/SSM may delegate the authority to enter and change AMREP data to that location.

4.2.1. All aircraft/missiles possessed by AFMC and input at an ALC are reported to the AMREP System. All aircraft and missiles possessed by AFMC and input for major maintenance at a contractor facility, as well as those that are undergoing field team maintenance, are reported to the AMREP System. The initial entry in the AMREP System must be made within 24 hours after the arrival of the aircraft/missile at the repair activity. Exceptions may be recommended by the SPD/SSM to HQ AFMC/LG. Such recommendations must be coordinated with the using command prior to review by HQ AFMC/LG.

4.2.2. System updates are the responsibility of the SPD/SSM or the weapon system's designated authority. When determining the frequency of system updates, the SPD/SSM should balance between the effort required to update the system as events occur as opposed to "batch" updates that affect the accuracy of the system. As a minimum, system updates for minor changes should be made on a weekly basis with major changes made at more frequent intervals.

4.2.3. Exceptions to Reporting. The SPD/SSM may make exceptions for aircraft/missiles undergoing short turn-around maintenance. Short turn-around maintenance is defined as maintenance which is completed within 10 flowdays. The 645 MATS is permanently exempt from reporting; however, aircraft status data must be submitted on request from HQ AFMC Battle Staff. When requested, status will be due no later than 8 hours after the initial request for information. Follow-on reports will be submitted as of 1500Z and due no later than 2000Z. Report format will be specified by the requesting office.

4.2.4. The SPD/SSM is responsible for ensuring the status of all aircraft or missiles undergoing maintenance and making sure all aircraft or missiles are reported based on the guidelines in **4.2.1.**

**5. Procedures.**

5.1. Establishing *Original Scheduled Out Dat*e:

5.1.1. The *Original Scheduled Out Date* is established no later than the day the aircraft or missile is placed in work. The negotiated calendar flow days specified in the contract or project directive for each aircraft tail number or missile is for all projected known requirements; i.e., PDM, analytical condition inspection (ACI), on condition maintenance, and modifications (MOD). These negotiated flow days are added to the *Date In Work,* thus becoming the *Original Scheduled Out Date*. Once established, the *Original Scheduled Out Date* will not be changed. Evaluations of a center's ability to meet the schedule will be based on the Original Scheduled Out Date.

5.1.2. The repair activity will assess the aircraft or missile before the *Scheduled Out Date* is established. The *Assessment Period* for each mission, design, and series (MDS) (tail number specific, if

necessary) or missile will be directed by the SPD/SSM, based upon advice from the repair activity and taking into account process, facilities, manpower, and contract requirements. The date the assessment period is to be completed will be recorded in the AMREP. **The Assessment Period and Scheduled Out Date are for local use only. No changes may be made to the Original Scheduled Out Date.**

5.2. Acceleration/Compression Procedures (specific procedures for acceleration or compression are contained in AFI 21-102):

5.2.1. For the purposes of estimating Acceleration/Compression, SPDs will establish for each aircraft mission/design:

5.2.1.1. Acceleration and Compression Factors between 0 and 1.0.

5.2.1.2. Cutoff Flow Days. Cutoff flow days are the initial days in depot flow time used for inprocessing the aircraft, but prior to beginning disassembly.

5.2.1.3. Compression Factors for Cutoff Flow Days.

5.2.2. To determine workdays remaining under acceleration or compression, multiply the appropriate factor for each aircraft by the remaining flow days unless the cutoff flow day has not been reached. The cutoff flow day is that day on which the aircraft has completed inprocessing and disassembly is to start.

Example:

The factors established for the F-XX are:

Compression - .62 Acceleration - .78

Cutoff flow days - 13 Cutoff compression - 3 days

The remaining forecast flow days are 133.

Compression Flow Days = 133 x .62 = 82.46 rounded to 83.

Acceleration Flow Days = 133 x .78 = 103.74 rounded to 104

If the aircraft has not reached its 13th flow day, then compression flow days = 3.

5.3. If the SPD/SSM is requested to compress or accelerate an aircraft by the owning command, the maintenance organization must perform a detailed evaluation of the aircraft. Compression or acceleration flow days developed as a result of the detailed evaluation will override the estimated compression/ acceleration flow days.

## 6. Exercise Management.

6.1. Joint Chiefs of Staff Command Post Exercise. HQ AFMC/LGP will be responsible for initiating the systems exercise option and notifying the appropriate activities of this action.

6.2. Local Exercise. Each activity will initiate their own exercise option according to the instructions in the AMREP Users Manual (copies are available from the HQ AFMC/LGP OPR).

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## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

*Terms*

**Acceleration—**During acceleration conditions, the maintenance facility follows the same basic procedure as in compression, except that the peacetime work specifications normally remain unchanged. This includes the requirement for final check flights (FCF).

**ACI—**Analytical Condition Inspection.

**Assessment End Date—Local Use Only—**. The Assessment End Date is the date that an overall evaluation of the aircraft is to be completed and the scope of work is known. The Assessment End Date is calculated by adding the Assessment Period to the Date In Work.

**Assessment Period-Local Use Only—**. A period of time, measured from the date that the aircraft or missile is placed in work, that Evaluation and Inventory is conducted. The period of time allotted for the assessment period is agreed upon by the SPD/SSM, the repair activity, and the operational command.

**Completion Date (Ready for Delivery)—**The date the aircraft or missile is ready for delivery to the owning command. All of the following conditions must be satisfied: all work is, FCF acceptance, if required has been completed along with the corrections of any identified discrepancies requiring work, the using command has been notified that the aircraft or missile is ready for pickup, the aircraft stands ready for crew acceptance and flyaway, except for the maintenance/operational ferry preflight.

**Compression—**When the maximum production is required for specified mission-essential aircraft/ missiles which are undergoing depot maintenance/MOD, production is compressed by, suspending routine peacetime work requirements and discontinuing aircraft or missile inputs to depot maintenance facilities, reassembling the aircraft/missiles after doing the absolute minimum maintenance essential to the safety of flight and only those MODs essential to the weapon's war mission configuration, extending the workday and the workweek to 24-hour-a-day, 7-day-a-week operation; realigning the work stations; and redistributing the labor force, as needed to meet maximum production efforts, resorting to whatever cannibalization is needed to complete the essential maintenance/MOD on the maximum number of aircraft.

**Compression Specifications—**The minimum maintenance or MOD requirements needed to render an aircraft effective in its assigned war mission. The requirement for FCF is left to the discretion of the depot under compression conditions.

**Cutoff Flow Days—**Cutoff flow days are the initial days in depot flow time used for inprocessing the aircraft, but prior to beginning disassembly.

**Date In Work—**The date the repair activity began work on the aircraft or missile. Work begins when the aircraft undergoes incoming processing action.

**Date Received—**The date the aircraft or missile arrived at the repair activity.

**Delivery Date—**The date the aircraft or missile was picked up by, or transported to, the "command."

**Depot Maintenance—**Maintenance which requires overhauling or rebuilding parts, assemblies, subassemblies, and end items. It may include manufacture of parts, MODs, testing, and reclamation. Depot maintenance supports base-level technicians by giving them technical help and doing any repairs

beyond their responsibility. Depot maintenance includes all software maintenance.

**Depot Maintenance Facility (Repair Activity)—**A government or contractor facility that performs depot maintenance and MOD of aircraft and missiles.

**Evaluation and Inventory—**A process by which the actual condition of the aircraft or missile is determined upon arrival at the depot and placed in work.

**FCF—**Final Check Flight.

**Forecast Out Date—**The date the repair activity expects to deliver the aircraft or missile to the owning command. This date may be greater or less than the Original Scheduled Out Date.

**Flow Days—**The number of days required to complete work on the aircraft or missile. Flow days are measured from the Date In Work.

**MDS—**Mission, Design, and Series.

**Normal Maintenance Production—**The normal production schedule for depot maintenance is based on an 8-hour, 5-day week, one-shift operation. Exceptions may occur for certain MDS which require multi-shift operations.

**Original Scheduled Out Date—**The date when all maintenance on the aircraft/missile is due to be completed and the aircraft or missile is to be ready for delivery to the using command. The Scheduled Out Date is established no later than the day the aircraft or missile is placed In Work. (Previously referred to as Initial AMREP.) Once entered, this cannot be changed.

**PDM—**Programmed Depot Maintenance.

**Repair Activity—**The depot or contractor location that is responsible for depot maintenance on the aircraft or missile. Repair activity/location codes are available in the AMREP System.

**Scheduled Out Date—**A revision to the Original Date Scheduled Out as a result of allowable delays. (Previously referred to as Revised AMREP or Adjusted AMREP.) (**Local Use Only**, Revisions to the Original Scheduled Out Date will not be used for reporting purposes.

**SPD—**System Program Director.

**SSM—**System Support Manager.

## Attachment 2

## JOB DESIGNATOR CODES

**Table A2.1. Codes.**

The job designator is an alpha code used to describe the type and extent of work being done. This list provides a brief description of job designator codes. For a more precise description of each code, refer to AFMC Command Dictionary/Directory (PCN: A-Q111A-SRC-AR-LXX). Authorized job designator codes are as follows

| Code | Title and Description |
|---|---|
| A | *Overhaul.* This type maintenance consists of complete end item disassembly, cleaning, inspection for repair requirements, and tests on the operating components and basic structure to determine the authorized support necessary to restore serviceability. Inspection and repair actions may include: replacement of subassemblies or operating components; adjustment, calibration, reassembly, and functional testing of the compete unit. It is considered to be synonymous with the term "rebuild." |
| B | *Progressive Maintenance/Programmed Depot Maintenance (PDM).* PDM or progressive maintenance includes a predetermined amount of repair work requiring depot skills, equipment and tooling, that requires disassembly, necessary cleaning, and inspection for repair or replacement (as necessary) of the component and assemblies. |
| C | *Conversion*. The work content of this code will alter the basic features of an item to such an extent as to change the mission, performance or capability. Normally, these MODs are known as Class V MODs. |
| D | *Activation.* This maintenance includes the depreservation, servicing, inspection, testing and replacement of subassemblies (as required) on major end items that have been stored or kept in an inactive pool at an authorized storage point. The range of end items includes aircraft, missiles, aircraft engines, vehicles and motorized equipment. Removal from shipment is included under this code. |
| E | *Inactivation.* This code applies to the preparation for temporary or long-term storage of major items at authorized AFMC storage points. Major end items include aircraft, missiles, aircraft engines, vehicles, and motorized equipment. For routine maintenance required on the stored items to maintain the desired level of serviceability refer to Code "M." Preparation for shipment is included under this code. |
| F | *Renovation.* This code applies when the maintenance work consists of performing a proof test procedure on a representative quantity of items or material to determine whether specification characteristics are satisfactory. This testing will result in the destruction or loss of a predetermined stock of supply or customer-owned items. Items requiring proof testing will include ordnance items, missile propellant mixtures, or other items or material whose projected shelf life can only be determined through a sample destruction and analysis process. |
| G | *Analytical Rework.* This code is applied when a depot maintenance mission performs a chemical or physical analysis of inservice items or new material, including ACI of aircraft. |

H *Modification.* This code includes the alteration or change of the physical makeup of a weapon/ support system, subsystem, component or part according to approved technical direction or technical order change. These are known as Class IV MODs.

I *Repair.* This code applies to that level of maintenance done by depot shops which doesn't require skills or equipment capabilities above that authorized for an Air Force organizational or intermediate maintenance function.

J *Inspection and Test. Condition Determination or Bench Check.* This code applies to the physical examination or testing required to determine the condition status of an item. This action must be a separate and distinct requirement applicable to the total job.

K *Manufacture.* This code applies to the manufacture or assembly/fabrication of any item.

L *Reclamation.* The authorized processing of end items, assemblies or subassemblies to obtain parts to be retained in the supply inventory, or for immediate consumption before taking disposal action on the remaining items. Repair performed under this code is limited to that required to restore the reclaimed part to a minimum usable level.

M *Storage.* This code includes the inspection, represervation, and routine maintenance of weapons systems, equipment items, subsystems and components in the supply system in a storage status to maintain a predetermined level of serviceability.

N *Technical Assistance.* This code is used when qualified depot maintenance workers provide technical information, instructions, guidance or perform work requiring specialized depot skills at a customer's location outside the maintenance function under a repair group category or area or base assistance.

Q *Maintenance Technical and Engineering Support.* This type maintenance consists of work done according to specifications furnished by the service engineering function or when directed by HQ AFMC. It includes technical and engineering support to maintenance in development of maintainability concepts and the maintenance portion of logistics plans dealing with future and present weapons and equipment.

R *Development of Technical and Engineering Data.* This code applies when the depot maintenance organization develops requested technical or engineering process data, including labor and material standard development, for use by a depot maintenance business activity customer.

T *Other Work.* This designator is used to complete the reporting of all maintenance work force costs incurred at a depot maintenance activity funded by a Department of Defense component industrial fund that does not meet the criteria for reporting under the other work performance categories shall be reported in this category. This includes any maintenance support costs funded by an industrial fund. This type maintenance may apply to nonmaintenance precision measuring equipment. It also includes automatic test equipment, production test mockups, powered hand and machine tools, ground powered equipment, and other similar support equipment for base, area or tenants.

U *Software Support.* (This job designator code is not authorized for maintenance use.)

X Co*ntractor Logistics Support*. A method of providing all or portions of organizational, intermediate, or depot support required to support a weapon system, weapon subsystem, or item of equipment. Contractor Logistics Support is normally used to support short, operational-life systems, or small inventories of commercial, off the shelf aircraft or equipment when establishment of AFMC organic life cycle logistics support isn't planned.

Y *Interim Contractor Support*. Temporary operational, intermediate, or depot level maintenance performed by a contractor while an organic maintenance capability is being phased in.